Episode Treatment Groups™: What You Should Know

The following information describes the methodology used to profile physicians for the Select PPO network. This approach focuses on the **cost-efficiency** of physicians by comparing their average cost of care to the average cost of care of their same-specialty peers.

Source Data Used for the Analysis

The analysis was based on 45,000 physicians and allied health providers in the existing Blue Cross of California (Blue Cross) Prudent Buyer (PPO) Network. The cost data for these providers were classified into types of episodes of care. Such episode of care data was available for 38,000 of these physicians and allied providers. Responsibility for each episode of care was assigned to a single physician. The average cost for each type of episode of care was compared to expected (average) cost for the same episode for the same specialty.

Episode of Care Methodology

Analysis was performed using the cost of care for specific patients, and for specific episodes of care for those patients. An Episode Treatment Group™ (ETG) is a patient classification system that groups medical services into classifications that are clinically homogeneous (with similar cause of illness and treatment protocol) and statistically stable. This episode of care methodology was developed by Symmetry Health Data Systems, Inc. and is licensed by Blue Cross.

ETGs classify an entire episode of care regardless of whether the patient has received medical treatment as an outpatient, inpatient, or both. Pharmacy claims are also included. Thus, the cost of professional services, institutional services (both inpatient and outpatient) and drugs are included in the total episode costs.

Differences in patient age, complicating condition, comorbidities and major surgeries are factored into the episode definition. Episodes are designed to be homogeneous with regard to underlying patient risk and severity characteristics.

Individual patients may have more than one active episode. Using the service unit of an individual claim, ETGs identify and track the treatment of different illnesses that can occur during the same patient encounter – each health care service is assigned to the clinically appropriate episode.

The following examples of high frequency episodes for Blue Cross' PPO membership are illustrative:

- Tonsillitis, Adenoiditis or Pharyngitis, without Surgery
- Acute Sinusitis
- Hyperlipidemia
- Joint Degeneration, Localized, without Surgery

- Benign Hypertension, without Comorbidity
- Minor Depression
- Hypo-Functioning Thyroid Gland
- Ischemic Heart Disease, Except CHF, w/o AMI
- Asthma, without Comorbidity, Age Less than 18
- Type II Diabetes, With Comorbidity

The ETG system is comprised of 574 separate groups. Further description of the methodology is available at **www.symmetry-health.com/**

Source Data

Episodes are constructed from an analysis of administrative claim data. The source data consists of all PPO claims incurred between July 2001 and June 2004, for members continuously enrolled for this time period and less than 65 years of age. This resulted in a database of 24 million episodes. The episodes used to develop the profile were those starting between July 1, 2002 and June 30, 2003.

Assigning Responsibility

More than one physician may provide diagnostic or treatment services in an individual episode. "Responsibility" was assigned for the episode to the physician with the highest aggregate charges for management and surgery services in the episode. Note that institutional costs are part of the total cost of the episode and are also attributed to a single physician identified as responsible for management of the episode.

Calculating Expected Costs of Episodes

For each separate episode in our data, a calculation was performed on the average total cost of care – including all costs, professional, ancillary, institutional, and pharmacy. These average costs were calculated separately for each physician specialty after truncating costs for high-cost outliers (those exceeding the 95th percentile for cost) and trimming the low-cost outliers (those below the 5th percentile for cost). This was done to correct for possible data issues and unusual episodes that would not be representative of expected costs. (The low-cost episodes are often "rule-out" episodes, generally lasting only one day or visit.)

Patient Severity Adjustment

ETGs were developed to account for differences in patient severity, and in most cases, the individual Episode Treatment Groups are homogeneous with regard to underlying patient risk (and potential cost). However, for some ETGs, significant variation in underlying patient severity remains. Episode data was analyzed and ETGs were identified where there was substantial variation in patient risk. Where

that variation was a statistically significant predictor of episode cost, the episode was split into "High Risk Patients" and "Low Risk Patients"; these new categories were used in the analysis. In this way, more accurate expected episode costs were derived for high risk and high cost patients.

Specialty Norms

Normative ("expected") episode cost was calculated separately by episode and specialty, using the primary physician specialty, as listed in the Prudent Buyer Directory. Thus, individual physicians are compared to their same-specialty peers.

Individual Cost-Efficiency Performance Ratio

Individual physicians typically care for a range of illnesses, and thus, will be assigned responsibility for a variety of different episodes. The cost for each episode assigned to the physician is compared to the expected (average) cost for their same-specialty peers, and a weighted average of these comparisons is generated. This value is a ratio of actual to expected costs. Thus, a number less than 1.0 indicates that the physician costs are lower than their peers; a number higher than 1.0 indicates that the physician is more expensive than their peers.

Group Selection

The cost-efficiency analysis has been performed at the individual physician level. However, contracting is done at the Tax ID level. Accordingly, weighted average cost-efficiency ratios were calculated for all the physicians billing under the same Tax ID and this average cost-efficiency ratio was used for selection. Most groups included in the analysis had at least 15 episodes assigned. Physicians groups targeted for the Select PPO network generally have cost-efficiency ratios of less than 1.0, but this may vary by geography and specialty.

Exceptions and Special Cases

The methodology described above was used in the initial physician selection for the Select PPO Network. However, some exceptions were applied to complete the network. First, hospital-based physicians (for example, radiology, anesthesiology, pathology, ER, specialties) were all included in the network. Profile information is available for these specialties but was not used in the selection process. Second, in some geographies, the cost-efficiency and episode volume criteria were relaxed to meet access standards. Third, for some geographies, physicians in Sutter medical groups were excluded because Sutter has not agreed to participate in the Select PPO Network.